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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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AKERMAN SENTERFITT P. O. BOX 3188 WEST PALM BEACH, FL 33402-3188			EXAMINER DAILEY, THOMAS J	
			ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/666,310	Applicant(s) CREAMER ET AL.	
	Examiner Thomas J. Dailey	Art Unit 2152	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 September 2003.
 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) ☐ Claim(s) _____ is/are allowed.
 6) ☒ Claim(s) 1-25 is/are rejected.
 7) ☐ Claim(s) _____ is/are objected to.
 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>2/12/2004</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-25 are pending in this application.

Claim Rejections - 35 USC § 101

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claims 10-25 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.
4. Claims 10-14 are directed to, "A framework comprising..." and all the limitations are software elements (a ghost registry and a ghost agent). Therefore the claims are directed to functional descriptive material that is not embodied on a computer system which is non-statutory.
5. Claim 15 is directed to, "A ghost agent..." and all the limitations are software elements of a ghost agent. Therefore the claims are directed to functional descriptive material that is not embodied on a computer system which is non-statutory.
6. Claims 16-24 are directed to, "A machine-readable storage" that is "executable by a machine for causing the machine to..." This is considered non-statutory

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subject matter and the examiner suggests the Applicant change the limitation to read "A computer readable storage medium" and "executed by a computer for causing the computer to..."

7. Claim 25 is directed to "A system for restricting resources consumed by a ghost agent comprising..." and all the limitations are software elements. Therefore the claims are directed to functional descriptive material that is not embodied on a computer system which is non-statutory.

Claim Rejections - 35 USC § 112

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. Claims 8-14, and 23-24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
10. Claims 8 and 23 recite, "based upon which ghost agents are registered with said domain" (claim 8, lines 2-3, and claim 9, line 2). "Ghost agents" lacks antecedent basis and it is unclear whether this is meant to refer or to include the ghost agent already recited in claim 1.

11. Claim 9 and 24 recite, "to registered ghost agents." "Ghost agents" lacks antecedent basis and it is unclear whether this is meant to refer to the ghost agent already recited in claim 1.
12. Claim 10 recites, "a least one ghost agent" (line 4) and "said ghost agents" (line 5). "Said ghost agents" lacks antecedent basis and it is unclear whether there are more than one ghost agent in the framework or at least one ghost agent.
13. Claims 11-14 are rejected due to their dependence on claim 10.

Claim Rejections - 35 USC § 103

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

15. Claims 1-12 and 14-25 rejected under 35 U.S.C. 103(a) as being unpatentable over Boukobza et al (US Pat. 6,122,664), hereafter "Boukobza," in view of Putzolu et al (US Pat. 6,681,243), hereafter "Putzolu."

16. As to claim 1, Boukobza discloses a method for restricting resources consumed by a ghost agent comprising the steps of:

registering a ghost agent within a domain (column 4, lines 5-15 and column 4, lines 64-67, "agents are installed...in the nodes to be monitored");

responsive to said registering, conveying a containment policy for said domain to said ghost agent (column 3, lines 30-39, agents are installed which monitor parameters and in response enact actions (e.g. reconfiguration, correction, alerts));

configuring said ghost agent according to said received containment policy (column 3, lines 29-39); and

utilizing said containment policy of said ghost agent to restrict resources available to said ghost agent (column 3, lines 29-39, user or default policy defines which parameters the agent has access to).

But, Boukobza does not explicitly disclose the ghost agent is configured to move across domains of a grid environment responsive to movements of an associated hosts.

However, Putzolu discloses using mobile agents in a grid environment and such agents being applications to diagnose, report, or correct network conditions (column 3, lines 59-61 and column 4, lines 17-23).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Boukobza and Putzolu in order to create a management method that utilizes mobile agents which allow for a decentralization of the method and ~~allowing~~ thereby allowing more effective management of the network (Putzolu, column 2, line 64-column 3, line 9).

17. As to claim 10, Boukobza discloses a framework comprising:

a ghost registry disposed within a domain of a grid environment, wherein said ghost registry comprises a containment policy for said domain (column 3, lines 40-49, management node conveys policies to agents); and

at least one ghost agent, wherein said ghost agents adhere to said containment policy when disposed within said domain (column 4, lines 5-15 and column 3, lines 29-39, user or default policy defines which parameters the agent has access to).

But, Boukobza does not explicitly disclose the ghost agent is configured to move from domain to domain within said grid environment.

However, Putzolu discloses using mobile agents in a grid environment and such agents being applications to diagnose, report, or correct network conditions (column 3, lines 59-61 and column 4, lines 17-23).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Boukobza and Putzolu in order to create a management method that utilizes mobile agents which allow for a decentralization of the method and ~~allowing~~ thereby allowing more effective management of the network (Putzolu, column 2, line 64-column 3, line 9).

18. As to claim 15, Boukobza discloses a ghost agent disposed within a grid environment, said ghost agent comprising:

- an interface for associating said ghost agent with a host (column 4, lines 64-67 and column 5, lines 13-18, "An autonomous agent SAA is chiefly composed of a generic agent GA related to specific modules SM");

- a ghost log configured to record data relating to said host (column 6, lines 30-34);

- and a ghost controller configured to receive at least one containment policy for a domain in which the ghost agent is disposed (column 3, lines 30-39, agents are installed which monitor parameters and in response enact actions (e.g. reconfiguration, correction, alerts)), wherein said ghost controller is further configured to restrict computing resources consumed by said ghost agent based upon said received containment policy (column 3, lines 29-39, user or default policy defines which parameters the agent has access to).

But, Boukobza does not explicitly disclose the ghost agent is configured to move across domains of a grid environment responsive to movements of an associated hosts.

However, Putzolu discloses using mobile agents in a grid environment and such agents being applications to diagnose, report, or correct network conditions (column 3, lines 59-61 and column 4, lines 17-23).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Boukobza and Putzolu in order to create a management method that utilizes mobile agents which allow for a decentralization of the method and allowing thereby allowing more effective management of the network (Putzolu, column 2, line 64-column 3, line 9).

19. As to claims 16 and 25, they are rejected by the same rationale set forth in claim 1's rejection.

20. As to claims 2 and 17, Boukobza and Putzolu disclose the invention substantially with regard to the parent claims 1 and 16, and further disclose determining a resource utilization value for said ghost agent (Boukobza, column 5, lines 23-32, parameters are measured by the agents, one such example is a CPU utilization value in column 6, lines 47-67);

comparing said resource utilization value to a limit established by said containment policy (Boukobza, column 6, lines 55-64); and

if said limit is exceeded, preventing said ghost agent from executing at least one operation (Boukobza, column 6, lines 55-64, "give priority to certain operations" (i.e. this prevents operations of low priority)).

21. As to claims 3 and 18, Boukobza and Putzolu disclose the invention substantially with regard to the parent claims 2 and 17, and further disclose:

deactivating said ghost agent (column 6, lines 59-61, the agent is considered deactivated when it is not measuring the parameters);

starting an idle timer for said ghost agent (column 6, lines 59-61, as there is a frequency of measurements, this will inherently have a timer, i.e. the time between measurements); and

when said idle timer exceeds a time threshold, activating said ghost agent (column 6, lines 59-61, the agent measures (activates) the parameter when the timer associated with the frequency measurements expires).

22. As to claims 4 and 19, Boukobza and Putzolu disclose the invention substantially with regard to the parent claims 1 and 16, and further disclose establishing a default containment policy for said ghost agent (Boukobza, column 3, lines 26-30), wherein said configuring step overrides said default containment policy (Boukobza, column 3, lines 26-30).

23. As to claims 5 and 20, Boukobza and Putzolu disclose the invention substantially with regard to the parent claims 1 and 16, and further disclose:

removing said ghost agent from said domain (Putzolu, column 4, lines 10-13, discloses movement of agents (i.e. the removal of agent and then a subsequent install at a different location) and Boukobza already disclosed agents associated with domains in claim 1 rejection); and

responsive to said removing step, de-registering said ghost agent from said domain (Putzolu, column 4, lines 10-13).

24. As to claims 6 and 21, Boukobza and Putzolu disclose the invention substantially with regard to the parent claims 5 and 20, and further disclose responsive to said de-registering step, configuring said containment policy of said ghost agent based upon a default containment policy (Boukobza, column 3, lines 26-30, teaches a default policy when the agent is install and Putzolu, column 4, lines 10-13, teaches the deregistering and reinstall of agents).

25. As to claims 7 and 22, Boukobza and Putzolu disclose the invention substantially with regard to the parent claims 1 and 16, and further disclose dynamically altering said containment policy of said ghost agent (Boukobza, column 3, lines 30-31).

26. As to claims 8 and 23, Boukobza and Putzolu disclose the invention substantially with regard to the parent claims 1 and 16, and further disclose altering limits of said containment policy for said domain based upon which ghost agents are registered within said domain (column 3, lines 26-39).

27. As to claims 9 and 24, Boukobza and Putzolu disclose the invention substantially with regard to the parent claims 8 and 23, and further disclose broadcasting said containment policy updates to registered ghost agents whenever said containment policy of said domain is altered (column 5, lines 6-18).

28. As to claim 11, Boukobza and Putzolu disclose the invention substantially with regard to the parent claim 10, and further disclose at least one registry agent configured to exchange data between said ghost registry and said ghost agents (Boukobza, column 3, lines 26-39).

29. As to claim 12, Boukobza and Putzolu disclose the invention substantially with regard to the parent claim 10, and further disclose a policy engine configured to dynamically alter resource consumption limits of said containment policy based upon which ghost agents are registered with said domain (Boukobza, column 3, lines 26-39 and column 6, lines 46-67, gives an example where a parameter is a consumption limit).

30. As to claim 14, Boukobza and Putzolu disclose the invention substantially with regard to the parent claim 10, and further disclose a ghost containment policy, wherein said ghost agents adhere to said ghost containment policy when disposed within a domain that has no ghost registry (column 3, lines 26-29, if the user does not set a specific containment policy, a default policy will be used for the deployed agent).

31. Claims 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Boukobza in view of Putzolu as applied to claim 11, in further view of what was well known in the art at the time of the invention.

32. As to claim 13, Boukobza and Putzolu disclose the invention substantially with regard to the parent claim 10, and further disclose said ghost agents adhere to said different containment policy when disposed within said different domain (column 4, lines 5-15).

But, neither explicitly discloses a different ghost registry in a different domain of said grid environment having a different containment policy,

Rather, Boukobza discloses a singular management node that distributes policies to agents (column 3, 26-39) which can be associated with particular domains (column 4, lines 5-15).


However, one of ordinary skill in the art at the time of the invention would appreciate that multiple management nodes can be deployed and it would be advantageous to distribute them to specific domains, Boukobza having already disclosed the usefulness of associated agents to particular domains. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Boukobza and Putzolu with what was well known in the art at the time of the invention in order to management a broader array of networks.

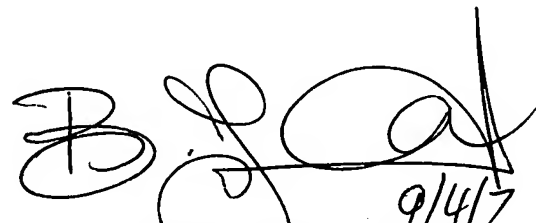
Conclusion

33. For additional prior art made of record and not relied upon and considered pertinent to applicant's disclosure see attached Notice of References Cited, Form PTO-892.
34. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas J. Dailey whose telephone number is 571-270-1246. The examiner can normally be reached on Monday thru Friday; 9:00am - 5:00pm.
35. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bunjob Jaroenchonwanit can be reached on 571-272-3913. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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36. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


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8/31/2007


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